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Social Workers' Perspectives of Psychotropic Drug Use on Children and Adolescents

by

Erika J. Bauer, B.S.W

MSW Clinical Research Paper

Presented to the Faculty of the
School of Social Work
St. Catherine University and the University of St. Thomas
St. Paul, Minnesota
in Partial Fulfillment of the Requirements for the Degree of
Master of Social Work

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The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

Abstract

Every year in the United States more children are receiving psychotropic medication to deal with mood and behavior interruptions. In fact, more children in the United States are being prescribed these medications than any other country in the world. Even though the long-term consequences of these medications are yet unknown, medical professionals are still prescribing them to children, an age demographic they were not originally approved for, and for longer periods of time than intended. The purpose of this study was to explore social workers' attitudes about the use of psychotropic drugs on children and adolescents, paying particular attention to the influence past legislation has had on prescription increases, social workers' perceptions of the harms and benefits associated with medicating youth, and their identified theoretical orientations. Using a quantitative design, 43 social workers registered with the Minnesota Board of Social Workers completed the survey which consisted of eight general information questions and 14 questions from the Social Workers' General Attitudes about Use of Psychotropic Medication with Youths scale created by Moses and Kirk (2006). Data was analyzed using SPSS to find univariate descriptive and bivariate inferential statistics. The findings from this study were consistent with current research, that social workers view psychotropic drug use on children and adolescents as both beneficial and harmful and helpful, but not necessary. However, unlike existing research, this study lacked a statistically significant relationship between social workers' theoretical orientation and their attitudes toward medicating youth. This study calls for more extensive research on child psychopharmacology and more attention and emphasis on psychopharmacology in social work educational settings.

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Psychotropic Drug Use on Children and Adolescents

Every year in the United States more children are receiving psychotropic medications to deal with mood and behavior interruptions, conditions that may be typical to a child's maturation level rather than pathological in nature. Children as young as two years old are receiving stimulants, anti-depressants, and antipsychotic medications (Coyle, 2000), an alarming reality since up to 60 percent of these drugs are off-label, indicating that they have not been tested on or FDA-approved for use on children (Lakhan & Hagger-Johnson, 2007). According to Morris and Stone (2011), "The dramatic rise in prescribing psychotropic drugs to children and adolescents has occurred without basic scientific evidence to support the safety and utility of these medications" (p. 302). Without absolute certainty of the long-term consequences of these medications, medical professionals are still prescribing them to children for conditions other than what they were approved for and for longer periods of time than intended.

Physicians in the United States prescribe more psychotropic medications to children than any other country in the world (Lakhan & Hagger-Johnson, 2007). This phenomenon may be due to the recent trend in the medicalization of our nation's youth. According to Conrad & Leiter (2004), "Medicalization occurs when previously non-medical problems are defined and treated as medical problems, usually in terms of illnesses or disorders" (p. 158). From 1993-2002, prescriptions for antipsychotic medications increased by six times for U.S. children and adolescents, making an estimated total of 8 million children and adolescents on one or more psychotropic drug (Morris & Stone, 2011). The two most commonly prescribed psychotropic drugs are Methylphenidate stimulants (i.e., Ritalin) for attention-deficit hyperactivity disorder (ADHD) for those two-14 years of age and selective serotonin reuptake inhibitors (SSRI's) (i.e., Prozac) for depression for those 15-18 years of age (Zito, et al., 2000). From 1997-2002,

antidepressant use among children 18 or younger increased from 160 per 10,000 (1.6 percent) in 1998 to 240 per 10,000 (2.4 percent) in 2002, signifying an annual increase of 9.2 percent (Delate, Gelenberg, Simmons, & Motheral, 2004). Furthermore, nearly half of all costs for adolescent psychiatric treatments in 2000 were for psychotropic medications rather than an alternative treatment, such as therapy (Thomas, Conrad, Casler, & Goodman, 2006).

Although long-term consequences are still unknown, research has linked psychotropic medication use in children and adolescents to tardive dyskinesia (Winick, 1997), increased suicide risk (Dubicka, Hadley, & Roberts, 2006), and impairments in brain development (Carrey, 2001). Due to the vulnerable nature of children and adolescents and the difficulty in gaining informed consent from them and their parents, researchers have been reluctant to conduct studies using them as their subjects (Lakhan & Hagger-Johnson, 2007). Thus, information about the potential long-term consequences of psychotropic drug use on children is still for the most part inconclusive and generally unknown.

According to the National Association of Social Workers (NASW) Code of Ethics, social work's primary mission "is to enhance human wellbeing and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty" (NASW, 1999). Therefore, it is the inherent responsibility of social workers to respond to the needs of children and adolescents, a vulnerable population, by advocating for further research on this topic. Social workers have the duty of turning to the NASW Code of Ethics to guide their practice, paying close attention to the "competence" principle, which seeks to increase professional knowledge and expertise (NASW, 1999). Although potentially expensive and time consuming to conduct research on children and

adolescents (Sharav, 2010), psychotropic medications should not be prescribed until they have successfully been part of conclusive research studies.

According to the Substance Abuse and Mental Health Services Administration (SAMHSA) “professional social workers are the nation’s largest group of mental health services providers. There are more clinically trained social workers—over 200,000—than psychiatrists, psychologists, and psychiatric nurses combined” (NASW, 1999). Due to their unique position as the frontline of mental health, social workers have the responsibility to curb the over medicalization of children and adolescents by promoting therapy in place of psychotropic medication or replacing medication with “complementary and alternative medicine (CAM)” (Goldbas, 2012, p. 16), which is defined “as a set of ‘diverse medical and health care systems, practices, and products which are not considered a part of traditional medicine’” (Goldbas, 2012, p. 17, citing National Center for Complementary and Alternative Medicine [NCCAM], 2011, p. 1). Because westernized medicine has not made much progress in curing or treating chronic pain or many chronic health problems such as heart disease and diabetes, CAM offers more holistic, alternative interventions such as mental health counseling, relaxation techniques, art therapy, music therapy, guided imagery, yoga, and supplemental and dietary modifications (Goldbas, 2012; Loewit-Phillips & Goldbas, 2013). If medications are deemed necessary, social workers should promote thorough mental health assessments before drugs are prescribed and concurrent alternative methods of therapy while taking them (Loewit-Phillips & Goldbas, 2013).

The purpose of this study is to further explore social workers’ attitudes about psychotropic drug use on children and adolescents. This paper will begin by differentiating between the existential-humanistic versus the neuropsychological theoretical frameworks. Next, it will examine the influence past legislation has had on both off-label use of medications and

direct-to-consumer advertising and the role these factors have played on the increase in psychotropic drug prescriptions. Finally, this paper will look at social workers' attitudes toward psychotropic drug use on children and adolescents, paying close attention to their perceptions of the harms and benefits associated with medicating youth and their identified theoretical orientations.

Conceptual Framework

Theoretical Lens

Many social workers take the person-in-environment approach and endorse an existential-humanistic theoretical framework. The emphasis of this framework is on understanding human experience and concentrating on the client rather than their presenting symptoms (Substance Abuse and Mental Health Services Administration, 1999). Specifically, the existentialist seeks to relieve clients' anxiety from loneliness, isolation, despair, and death through assisting them in finding meaning in their lives (Substance Abuse and Mental Health Services Administration, 1999). The humanist believes that humans are inherently good and that the therapeutic relationship is the vehicle for change. Through the therapeutic relationship, humanists seek to facilitate growth and self-actualization and free people from destructive assumptions and attitudes (Substance Abuse and Mental Health Services Administration, 1999). Overall, the existential-humanistic theoretical framework takes the systems theory approach, which "explore both causes and solutions in the environment encompassing any individual client instead of blaming the client" (Zastrow & Kirst-Ashman, 2004, p. 97). Taking into account the micro, mezzo, and macro systems, social workers embracing an existential-humanistic orientation have a better understanding of the influences one's social environment has on a client's life. Therefore, when working with children and adolescents exhibiting abnormal mental

or emotional problems, social workers would assess not only for the biological, organic etiologies of the symptoms, but also for the various psychosocial stressors influencing childrens' lives. When these stressors are accounted for, it becomes clear that medication may not be the best option; social workers may first introduce alternative interventions such as classroom adaptations, therapy, or dietary modifications.

Social workers who endorse the medical model paradigm are more likely to subscribe to the neuropsychological theoretical framework, which seeks to understand "how psychological processes relate to the brain's structures and systems" (AllPsychologyCareers.com, 2013, n. p.). Like many health professionals, these social workers believe in the biological etiology of psychiatric and behavioral disorders (Loewit-Phillips & Goldbas, 2013) and promote the use of psychotropic medication as the first line of mental health treatment (Morris & Stone, 2011). They may also be more likely to blame the client for a micro, personal-related fault and attempt "to cure or 'fix' the individual" (Zastrow & Kirst-Ashman, 2004, p. 97).

Literature Review

Psychotropic Medication

Treatment and usage. Psychotropic medications are prescribed to children and adults to treat a myriad of mental health conditions including anxiety, depression, attention-deficit hyperactivity disorder, obsessive-compulsive disorder, bipolar disorder, and psychosis. Frequently, they are prescribed to treat abnormal behaviors related to aggression, mood disturbances, disruptions in perceptions, and self-injury (Spetie & Arnold, 2007). They are divided into six main categories: stimulants, antipsychotics, antidepressants, depressants, anti-anxiety sedatives, and mood stabilizers (Mello, 2012). According to Mello (2012), "Psychotropic medications act directly on the brain to chemically alter mood, cognition, or behavior, their

effect typically being achieved by altering the process of neurotransmission” (p. 399, citing Burton, 2010, p. 466). Several theories on neurotransmission surmise that antipsychotic and antidepressant drugs serve to stabilize abnormal levels of chemical substances in the brain by either facilitating the effect of low chemical levels or neutralizing the oversupply of high chemical levels (Winick, 1997).

Side effects. Multiple side effects are associated with psychotropic medications including various autonomic disturbances such as “blurred vision, dry mouth and throat, constipation, paralytic ileus, urinary retention, orthostatic hypotension, edema, tachycardia, palpitations, dizziness, faintness, drowsiness, fatigue, and inhibition of ejaculation” (Winick, 1997, p. 72). Specific to antipsychotics are sedation, inability to concentrate, flat affect, lethargy, weight gain, convulsions, Parkinsonian syndrome, akathisia, dystonia, and dyskinesia (Winick, 1997). Specific to antidepressants are drowsiness, vertigo, increased appetite, nausea, headache, visual and motor impairments, dependence, and withdrawal (Winick, 1997). Some studies have even linked antidepressants to the opposite effects such as having insomnia and a decreased appetite (Uher, et al., 2009).

Long-term consequences. Psychotropic drugs have also been linked to several long-term, irreversible conditions such as tardive dyskinesia, increased suicide, and impairments in brain development. Tardive dyskinesia is a permanent neurological syndrome that affects between 0.5 percent and 40 percent of individuals taking psychotropic medications (Winick, 1997). It is characterized by “slow, rhythmical, repetitive, involuntary movements of the mouth, lips, and tongue, sometimes accompanied by other bizarre muscular activity” (Winick, 1997, p. 74) such as lip smacking, tongue protrusion, jaw shifting, and cheek blowing. Other motor

abnormalities throughout the body are also common, including involuntary movements of the arms and legs, irregular bodily positions, and difficulty in staying in one place (Winick, 1997).

Suicide increase is also an alarming reality of psychotropic drug use, most specifically of antidepressant medications. In a meta-analysis conducted by Dubicka, Hadley, and Roberts (2006), children and adolescents who were taking an antidepressant were reported more likely to exhibit suicide-related events such as suicidal thoughts, self-harm, and suicide attempts than children and adolescents on a placebo. Overall, of the respondents aged six-18 years, roughly five percent, or 71 out of 1487 on antidepressant medications experienced increased tendencies for suicide-related events, while only three percent, or 38 out of 1254 on placebos experienced related symptoms (Dubicka, et al., 2006). That means for every 57 children or adolescents on an antidepressant, one will be affected by a suicidal tendency (Dubicka, et al., 2006). Although several studies have challenged research studies such as these (Gunnell & Ashby, 2004; Medicines and Healthcare Products Regulatory Agency, 2004; & National Collaborating Centre for Mental Health, 2004), Dubicka, et al., (2006) assert: "Further studies are urgently required that are prospectively designed to measure suicidality, adequately distinguish self-harm, thoughts and attempts, and do not exclude the most depressed suicidal children" (Dubicka, et al., 2006, p. 397). Thus, mental health professionals are encouraged to closely monitor young clients who are being treated with antidepressants (Dubicka, et al., 2006).

The use of psychotropic medication on children and adolescents has also been linked to disruption in brain development and possible long-term brain damage. Youth on psychostimulants such as methylphenidates (i.e. Ritalin) for treatment of ADHD have been shown to have an increase in regional cerebral blood flow and a decrease in glutamate levels in the prefrontal cortex after taking medication. Similarly, brain images of children and adolescents on

antidepressants were shown to have decreased striatal glutamate and structural changes in their nucleus accumbens and thalamus. Finally, youth taking antipsychotic neuroleptics were found to have an increase in basal ganglia volume. Although it is not yet understood whether these biological changes in the brain are of any significance, the use of psychotropic medication on children and adolescents is still cautioned because of its threat to central nervous functioning (Carrey, 2001).

Federal Laws and Regulations

FDA new-drug approval. In order for a new drug to be placed on the market, the Federal Drug Administration (FDA) mandates that drug manufacturers undergo an exhaustive clinical trial process. This process includes controlled studies that verify the drug being tested is safe and effective for both the intended and unintended populations, for those taking varying dosages, and for those on multiple medications. Once the drug passes this level of testing, the results are consolidated into a formal new drug application that indicates how the drug was manufactured, which patient groups it will be labeled for, and a complete disclosure of findings. Lastly, a multi-disciplinary team comprised of medical professionals evaluates whether the drugs' benefits outweigh the risks for the intended population. With purpose, much of this information is left out of drug labels and article reviews, making it unavailable for public scrutiny (Mello, 2012).

New legislation: FDA modernization act of 1997.

Off-label use of medications. Enacted in 1997 and implemented in 1999, the FDA Modernization Act dramatically changed the medical climate, allowing drug manufacturers to endorse the off-label use of medications (Thomas, Conrad, Casler, & Goodman, 2006). For the first time, medications could be prescribed to patient populations that they were not originally

tested on or intended for. Unregulated by the FDA or U.S. government, this “off-label” use of medication permitted doctors to utilize their professional beneficence in treating a broader range of patients and conditions (Lakhan & Hagger-Johnson, 2007). However, according to Mello (2012), “Critics contend that off-label medication use often occurs without strong scientific support. Off-label uses are clearly not subject to the same rigorous standards that the FDA’s new drug approval process mandates” (p. 408). Because 50 to 75 percent of medication used by children is off-label (Mello, 2012), this could indicate that doctors make decisions without appropriate guidance and that they may be unclear about side effects, dosages, and long-term consequences of many of the drugs they prescribe (Buck & Farrington, 2000). In the 1960’s and 1970’s, an antibiotic called Tetracycline was given to millions of children before doctors learned that it caused yellowing and deformation in childrens’ teeth (James, 2003). As late as 1999, seven infants in a Tennessee hospital developed pyloric stenosis, a condition that blocks digestion, after taking an antibiotic called erythromycin, resulting in projectile vomiting and surgery as the only treatment option (James, 2003). Perhaps because it is too early to detect, little research yet exists that demonstrates the long-term consequences of psychotropic drug use on children and adolescents.

Pediatric exclusivity provision. Historically, children have not been used as research subjects in many studies due to their limited ability to consent and their overall suggestibility and vulnerability (Spetie & Arnold, 2007). These ethical dilemmas along with a general lack of incentive to conduct clinical trials on children has resulted in a dearth of data on the safety and effectiveness of most psychotropic medications for this population. According to Lakhan and Hagger-Johnson (2007), “This reluctance has arguably made children more vulnerable, because little safety data exists for clinicians to refer to” (p. 3). As a result, the FDA Modernization Act

of 1997 also established the Pediatric Exclusivity Provision, which gives all drug companies who are under patent protection a six month marketing exclusivity if they conduct research on children. While the patent is in effect, the companies that comply with the clinical studies have full authority and rights over their drug, meaning they do not have to compete with lower-cost generic brand drugs (Meadows, 2003). According to Meadows (2003) once these companies were given an economic incentive to study children, “the dam broke completely open” (p. 15) to pediatric studies. By September of 2002, more than 60 drugs achieved pediatric exclusivity and an additional 600 more were being requested for studies (Meadows, 2003).

New legislation: FDA guidelines for broadcast advertising in 1997. Along with the FDA Modernization Act, new FDA guidelines for broadcast advertising also dramatically influenced the medical climate. These new guidelines allowed pharmaceutical companies to market their drugs directly to consumers, referred to as direct-to-consumer advertising (DTCA) (Thomas, et al., 2006). According to Rosenthal, et al., (2002) DTCA increased by 212 percent within the first three years after the guidelines were passed (p. 499). In 1996, DTCA was at nine percent of total promotional spending. However, by 2000, DTCA had increased to 16 percent (Rosenthal, et al., 2002).

DTCA: Implications of the FDA modernization act and FDA guidelines for broadcast advertising. In 1999, after the FDA Modernization Act loosened restrictions for off-label medication use and new FDA guidelines were established for broadcast advertising, there was a 64.6 percent increase in prescriptions for psychotropic medications (Thomas, et al., 2006). According to Lakhan and Hagger-Johnson (2007), the U.S. has “seen a large increase in prescriptions for antipsychotic drug use, not accompanied by a parallel rise in the prevalence of psychotic illnesses” (p. 2). This increase in psychotropic drug prescriptions is directly related to

the increase in drug marketing by pharmaceutical companies to physicians and consumers alike (Morris & Stone, 2011).

Promotional spending: DTCA to physicians. DTCA to physicians occurs most frequently through office-based promotions, hospital-based promotions, journal advertisements, and free medication samples (Rosenthal, et al., 2002), but it also occurs through “direct mail, gifts, travel subsidies, and sponsoring events” (Conrad & Leiter, 2004). In a study conducted by Rosenthal, et al., (2002) from 1996-2000, it was discovered that pharmaceutical companies spent five billion dollars on DTCA to physicians, which is more than 80% of all spending on the promotion of prescription drugs and more than five times the amount spent on advertisements directly to consumers (Henderson, 2002). Overall, during these years there was a 71% increase in DTCA to medical professionals (Lyles, 2002).

DTCA via the media. Pharmaceutical companies are also advertising through television, journals and magazines, newspapers, and the Internet (Henderson, 2002). According to Thomas, et al., (2006), “direct-to-consumer advertising and other marketing strategies are key in encouraging greater use of psychotropics, particularly for the increased use after 1999. Advertisements for medications for ADHD, social phobia, and depression are now common in various public media” (p. 68). Between 1996 and 2000, annual spending on DTCA increased three-fold, with spending on television advertisements specifically increasing six-fold, to one and a half billion dollars (Conrad & Leiter, 2004). The “disease awareness campaigns” (Conrad & Leiter, 2004, p. 164), which create markets for drugs by constructing new medical problems to warn consumers about, have “contributed to the medicalization of emotions, expanding medical jurisdiction over emotions such as worry and shyness” (Conrad & Leiter, 2004, p. 163). As discussed above, “medicalization” occurs when typically non-medical conditions are

pathologized as medical problems and are considered illnesses or disorders (Conrad & Leiter, 2004, p.158). For example, in 1996, Paxil was approved by the FDA as an anti-depressant drug. However, because it was second behind Prozac and other SSRI's, Paxil manufacturers requested and received FDA approval for its application in the "anxiety market" (Conrad & Leiter, 2004, p.163), expanding its uses to panic disorder, obsessive-compulsive disorder, social anxiety disorder, and generalized anxiety disorder (Conrad & Leiter, 2004, p.163). A long line of Paxil advertisements followed that shed light on anxiety related conditions, increasing their diagnostic validity and perceived prevalence (Conrad & Leiter, 2004) and making Paxil the 4th most commonly advertised drug on the market (Rosenthal, et al., 2002). According to Conrad and Leiter (2004), "Such promotions can induce people to self-label their problems as medical entities and seek more medical services. This medical commodification shifts both definition and solution into the medical sphere" (p. 171). Clearly, DTCA helps generate consumers' beliefs that psychotropic medications are the only remedies for their "diseases" and is correlated with the rise of patient requests for symptom-specific medications. Speaking directly to consumers, television advertisements tell the audience to "ask your doctor if Paxil is right for you" (Conrad & Leiter, 2004, p.170). These advertisements, along with the availability of drug samples provided by pharmaceutical companies, have resulted in an increased level of stress for medical professionals in prescribing medications when requested (Thomas, et al., 2006). Although they may not believe that the medications are appropriate or warranted (Conrad & Leiter, 2004), many doctors still admit to prescribing medications to over 70 percent of requests, especially when the samples were right on hand (Henderson, 2002).

Who Benefits

Ultimately, pharmaceutical companies are the true beneficiaries of the FDA Modernization Act of 1997 and the FDA guidelines for broadcast advertising. The six months of patent exclusivity of the Pediatric Exclusivity Provision has incentivized pharmaceutical companies to conduct clinical trials (Mello, 2012). However, the lack of provisions and oversight on how and where to conduct these trials has enabled drug companies to perform research outside of the United States in developing countries where it is less expensive and time consuming and requires no adherence to ethical guidelines (Sharav, 2010). It is estimated that some 65 percent of studies were conducted offshore, allowing pharmaceutical companies to take in \$14 billion in profits from expenditure savings (Sharav, 2010).

Pharmaceutical companies are also profiting from the off-label use of medication that was a product of the FDA Modernization Act. After these guidelines were enacted, pharmaceutical companies were able to market off-label drugs directly to physicians and consumers for purposes and populations other than what they were originally labeled for, ultimately increasing their sales (Mello, 2012). According to Conrad and Leiter (2004), by 1999, “the pharmaceutical industry was the most profitable industry in the United States, with an 18.6 percent return on revenues” (p. 161). In that year alone, off-label use of medications along with DTCA helped generate \$125 billion in sales on drug prescriptions (Conrad & Leiter, 2004).

Social Workers’ Attitudes towards Psychotropic Drug Use on Children and Adolescents

Perceptions of the harms and benefits of psychotropic drug use on children and adolescents. Few research studies have been conducted on social workers’ attitudes regarding psychotropic drug use on children and adolescents. However, the literature that does exist supports the notion that social workers’ beliefs about the harms and benefits of

psychopharmacology are multi-dimensional, meaning they view psychotropic drug treatment as both beneficial and harmful (Moses & Kirk, 2006). Historically, the profession viewed psychotropic medications as negative and inappropriate (Davidson & Jamison, 1983). In their article, Davidson and Jamison (1983) attempted to shed light on the use of pharmaceuticals to social workers, asserting:

Drug treatment is a mixed blessing, entailing in some cases unquestionable benefit, and in others serious negative effects. The issue of drug treatment should not be viewed as an issue of evil versus good. It is not so simple as that. Rather, the appropriate professional stance should be one of cautious acceptance, with the dangers as well as the benefits of drug treatments taken into consideration. (p. 140)

In more recent years, social workers have taken that very stance, recognizing both the harms and benefits. Bentley, Farmer, and Phillips (1991) determined that social work students' attitudes lay in the midrange, with little polarity. The item that elicited the strongest disagreement was that equating taking medication to a lack of personal strength and the item that elicited the strongest agreement was that which referred to medication as being medically necessary for those struggling with serious and persistent mental illnesses. Bentley, et al., (1991) wrote, "It may be that the midrange of scores...represents a high degree of ambivalence regarding medication use stemming from exposure (personal and professional) to both positive and negative aspects of medication" (p. 287). This 'cautious acceptance' of medication use is in conjunction with the stance suggested for social workers by Davidson and Jamison (1983).

In Moses and Kirk's study (2006), 2,000 social workers who were members of the National Association of Social Workers (NASW) received an extensive 10-page questionnaire focusing on the research question: What are social workers' attitudes about the use of

psychotropic medication on children and adolescents? Five hundred and sixty-three usable surveys were returned from social workers who had their Master's in Social Work (MSW) and who worked directly with clients in a mental health or school social work setting. The questionnaire was two-part, asking for respondent demographics and a response to the General Attitudes about Use of Psychotropics with Youths Scale, which consisted of 14 questions related to the worth of psychotropic drug use on children and adolescents. Three clusters of items were extracted from the data, including "Medication's Harms," "Medication's Benefits," and "Medication and Other Treatments." Regarding "Medication's Harms," social work respondents mostly disagreed that psychotropic medications were harmful for youth. However, on the individual items, respondents agreed that medication often substitutes alternative forms of treatment and that reliance on medication absolves the need to address larger social problems. Regarding "Medication's Benefits," social work respondents were in the middle; 81 percent agreed that medication is a necessary part of treatment for many emotional disorders and 60 percent agreed that medication's benefits outweigh the risks. However, only nine percent agreed that medication is the most effective way to regulate abnormal behaviors. Regarding "Medication and Other Treatments," the majority of social workers believed that medication should not be the first line of mental health treatment nor should it be the only form of treatment. Slightly over 52 percent of social work respondents agreed that medication does not combat the core problem and that it should only be considered after all other alternative forms of treatment have been exhausted or in conjunction with them. All in all, Moses and Kirk (2006) found that "In short, even those who perceive that medication is often necessary or helpful may not identify medication as sufficient or the most effective way of dealing with behavioral problems" (p. 217).

Another study regarding social workers' attitudes about psychotropic drug use on children and adolescents was conducted by Johnson, Renaud, Schmidt, and Stanek (1998). This study was based on a similar sample to Moses and Kirk (2006), using 334 NASW members who all had an MSW and two years or more of post-graduate clinical practice. Using the Providers' Beliefs about Parents (PBAP, 1994) questionnaire, the research sought to answer the question about whether professionals' belief systems contributed to or adversely effected collaborative practice with parents. Thirty-three questions were clustered into five main categories: blame, inform, validate, medicate, and instruct. Johnson et al., (1998) found that more than half of the social workers, or 177 respondents, disagreed or strongly disagreed with the statement "For many psychiatric disorders in children and adolescents, medication is necessary." Interestingly, however, 152 respondents agreed with this statement and over two-thirds agreed that drugs are helpful in treating mental and emotional disorders. In congruence with Moses and Kirk's study (2006), these authors state: "This combination of results seems to suggest the view that medication is helpful but not necessary" (Johnson, et al., 1998, p. 183).

Level of agreement with psychotropic drug use on children and adolescents. A study conducted by Johnson and Renaud (1997) compared social workers' attitudes toward parents of children with mental and emotional disabilities to attitudes of psychologists and psychiatrists. Respondents were gathered from their respective national associations, making a total of 334 social workers, 153 psychiatrists, and 553 psychologists. Using 33 questions from the BPAP (1994), the results of the study depict the strong differences in attitudes and beliefs assumed by these mental health professionals. Overall, only about half of all the respondents agreed with medicating a child with a mental or emotional disability with psychiatrists more in favor of medication than social workers or psychologists. As for attitudes towards parents, social workers

were more likely than psychologists and psychiatrists to blame parents for their child's mental and emotional problems and psychiatrists and social workers were less likely than psychologists to agree with fully sharing information with parents or giving specifics on ways to help them with their child. Consequently, Johnson and Renaud (1997) assert:

More attention is needed, especially in the training of clinical social workers, to contemporary research-based knowledge that supports the importance of biological factors in etiology and the effectiveness of biological treatments (psychotropic medications) for some of the emotional and behavioral disturbances of childhood and adolescence. (p. 160, citing Peschel & Howe, 1992, n.p.)

Other studies have been conducted that depict similar results to those above. Pentecost and Wood (2002) distributed 390 questionnaires to child-care social workers who were asked to rank their agreement or disagreement of various interventions for the management of children with ADHD. The results indicate that social workers preferred parent guidance and parent training for a treatment intervention over stimulant medication, child psychotherapy, or family financial support, with over one-third of all respondents wary of the efficacy of these three interventions. Summarizing child-care social workers' attitudes about the use of a psychotropic medication to treat children or adolescents with ADHD, Pentecost and Wood (2002) state:

A high proportion of social workers in our sample were unsure or disagreed with its use. There was a strong preference in the sample as a whole for psychosocial interventions over medically oriented ones. These responses are consistent with the theoretical discourses that inform social work training and practices. (p. 938)

According to Pentecost and Wood (2002), by valuing the person-in-environment perspective, social workers are hesitant about the medical labeling of clients, which tends to neglect the scope of social and contextual factors influencing them.

Theoretical frameworks and social workers' attitudes. Moses and Kirk (2006) assert that social workers' perspectives about psychotropic drug use on children and adolescents are associated with their theoretical framework, or what Johnson et al., (1998) refer to as "mental models" (p. 175). These mental models shape workers' attitudes and ultimately determine the course of action they take in treating their clients (Moses & Kirk, 2006). Although part of the same profession, individual social workers have many contrasting theoretical frameworks. On the one hand, there are social workers who endorse the person-in-environment viewpoint that adheres to a more empowering and strengths-based approach to mental illness. On the other hand, there are the social workers who are closer supporters of the medical model. According to Moses and Kirk (2006):

Those who view human problems within their broad social, economic, and political context perceive the medical model as simplistic, reductionist, and physically as well as psychologically harmful. These critics suggest that the medical model and its associated biological treatments are often coercive and controlling of clients and tend to delegitimize clients and their views. (p. 212)

However, proponents of the medical model assert that there is significant scientific evidence proving the safety and efficacy of medication and that it should be considered a feasible treatment option. As for theoretical frameworks, those with cognitive-behavioral and neuropsychological orientations tend to be more supportive of the medical model and have a more positive attitude toward the use of psychotropic medication on children compared to those

with family systems or existential-humanistic orientations who tend to be more supportive of the person-in-environment viewpoint.

In Moses and Kirk's study (2006), social workers' theoretical frameworks were studied to determine if they influenced their attitudes about psychotropic drug use on children and adolescents. They found that the respondents who viewed medication as harmful were more likely to have an existential-humanistic orientation compared to a neuropsychological orientation. They also tended to be older in age, indicating that they may not have been educated in psychopharmacology nor perhaps accustomed to medicating clients throughout their professional lives. In contrast, the respondents who viewed psychotropic medication as beneficial for use on youth had more years of experience and considered themselves knowledgeable and educated in psychopharmacology.

In the Johnson et al. study (1998), the authors hypothesized that social workers' theoretical frameworks, or mental models, would either promote or unfavorably affect collaboration with parents of children with mental and emotional disabilities. When asked to pick two of any of the theoretical frameworks, they found only seven respondents claimed a neuropsychological orientation. By contrast, 197 endorsed ego psychological/psychodynamic theory, 157 endorsed family systems, 129 endorsed cognitive behavioral, and 47 endorsed existential-humanistic. The social workers who supported the neuropsychological orientation were less likely to blame parents for having children with mental and emotional disabilities and more likely to attribute childrens' conditions to biological deficits that could be treated with psychotropic medication. In the study conducted by Johnson et al., (1994), the exact same number of respondents supported the neuropsychological framework. However there were variances between the other four remaining orientations. They found that "Expectations with

respect to attitudes toward medication were also borne out by the data; respondents endorsing a neuropsychological orientation were more in favor of medication than any other group” (Johnson et al., 1994, p. 106). It is clear from the studies conducted by Moses and Kirk (2006) and Johnson, et al., (1994, 1998) that there is a parallel between social workers’ theoretical framework and their attitudes about psychotropic drug use on children and adolescents; the lack of support for medicating youth was in direct correlation with the low amount of social workers who endorsed the neuropsychological orientation.

In Johnson and Renaud’s study (1997), which compared social workers’, psychologists’, and psychiatrists’ professional beliefs about medicating children with mental and emotional disabilities, theoretical frameworks significantly differed by discipline. Social workers were much more in favor of the ego psychological/psychodynamic, family systems, and existential-humanistic orientations and much less in favor of the cognitive-behavioral or neuropsychological orientations compared to psychologists who favored the cognitive behavioral orientation and psychiatrists who favored the neuropsychological orientation. Johnson and Renaud (1997) noted, “Within each discipline, endorsers of a neuropsychological orientation were more in favor of medication than were nonendorsers” (p. 156). Not surprisingly, psychiatrists were the most likely to support medication use on children. Also significant to the study was the social work stance on the person-in-environment when considering the cause of a child’s mental or emotional disability. In general, social workers were the least likely to agree with the notion that problematic child behaviors were the result of biological makeup, while psychiatrists were the most likely to agree with this notion. Instead, social workers endorsed the idea that these behaviors were the result of family dysfunction and in fact, that children were the victims. Overall, the researchers concluded, “It was not surprising to find that social workers and

psychologists were less sympathetic to the so-called medical model than child psychiatrists, as evidence by their lesser agreement with biological remedies (medication)” (Johnson & Renaud, 1997, p. 159). This finding is consistent with the training and frameworks that each profession aligns themselves with, with social workers more frequently supporting the person-in-environment, and therefore, existential-humanistic orientation, and with psychiatrists more frequently supporting the medical model, and therefore, neuropsychological orientation.

Recent literature suggests that there has been a shift in social workers’ theoretical framework from looking with caution and suspicion at psychotropic drug use on children and adolescents (Davidson & Jamison, 1983) to a more supportive and positive outlook (Moses & Kirk, 2006). As indicated by the research studies above, social workers may not fully embrace the use of psychotropic medication on children, but they now, at the very least, understand that it has the potential to be helpful in controlling mental and emotional disorders. It is possible that this shift in theoretical framework occurred after the enactment of the FDA Modernization Act of 1997 when treating children and adolescents with psychotropic drugs became more commonplace and acceptable.

As discussed, current research exists that demonstrates what social workers’ attitudes are toward medicating youth and the general theoretical frameworks they endorse. However, there is no known research yet that combines these two ideas. This paper seeks to answer what is missing in current research, “Is there an association between social workers’ theoretical orientations and their attitudes toward psychotropic drug use on children and adolescents?” Due to social work’s training and practice emphasis on the person-in-environment orientation, I hypothesize social workers will tend to endorse an existential-humanistic theoretical framework compared to a neuropsychological framework, which is more medically based. Consequently, I

hypothesize that social workers' attitudes towards psychotropic drug use on children and adolescents will be consistent with that found in current literature, viewing medication as both beneficial and harmful (Moses & Kirk, 2006) or as Johnson et al., (1998) puts it, "helpful but not necessary" (p. 183).

Methods

Research Design

A general information questionnaire along with the Social Workers' General Attitudes about Use of Psychotropic Medication with Youths scale (Moses & Kirk, 2006) were combined into one survey (see Appendix A) to conduct a cross-sectional, quantitative study that compared social workers' theoretical orientations to their perspectives of psychotropic drug use on children and adolescents.

Sample

The surveys were sent out to a random stratified sample of 250 social workers who were registered with the Minnesota Board of Social Workers. A total of 43 respondents completed the survey. Although the participants were intended to be from diverse backgrounds, they were overwhelmingly female (84%), Caucasian (95%), and middle-aged, with the majority of them being in their 30's, 40's, and 50's. Levels of licensure were evenly distributed among the respondents with the highest percentage in the LICSW category (39%). The years of experience as a social worker ranged from one year to 36 years and the vast majority of respondents (61%) worked with children, followed by 18% of participants who worked in adult mental health or the geriatric/aging populations.

Protection of Human Subjects

Measures to protect the respondents were implemented by the researcher. Prior to administering the survey, information about the study was submitted to and approved by the University of St. Thomas Institutional Review Board (IRB). Before taking the survey, participants were emailed the Letter of Informed Consent (see Appendix B), which, upon clicking on the survey link, implied that they agreed to the terms of the research paper and were voluntarily willing themselves to proceed. The Letter of Informed Consent notified participants that there were no known risks or benefits to the survey and that it was both voluntary and anonymous in nature. As a voluntary survey, participants did not have to 1) do the survey if they preferred not to or 2) fill out all the questions. If they wished not to participate, they were free to opt out of it at any time without affecting their current or future relations with St. Catherine University/the University of St. Thomas. As an anonymous survey, it did not elicit any personal information.

The Letter of Informed Consent also informed participants that in any written reports or publications, only group data would be presented in an effort to avoid individual identification. Lastly, the participants were notified that the electronic surveys would remain in a password-protected file that only the named researcher, chair, and committee members would be allowed access to and that they would be destroyed upon completion of the researcher's graduate studies in May, 2014.

Data Collection Instrument and Process

The data collection instrument contained eight general information questions about the respondents and 14 questions from the Social Workers' General Attitudes about Use of Psychotropic Medication with Youths scale (Moses & Kirk, 2006). The general information

about the respondents included gender, age, race/ethnicity, current level of social work licensure, years of practice, primary area of practice, past training or education received in psychopharmacology, and theoretical orientation. The scale consisted of questions that were rated on a four-point Likert scale ranging from (1) strongly disagree to (4) strongly agree. The questions were then divided into three categories that elicited social workers' perspectives on medication's benefits, medication's harms, and medication and alternative treatments (Moses & Kirk, 2006). Most specifically, "social workers were asked to rate the extent to which they believe that psychotropic medication is beneficial for or detrimental to youth and to provide their opinion about the extent to which psychotropic medication is appropriately used in contemporary mental health practice" (Moses & Kirk, 2006, p. 214).

Two hundred and fifty social workers who were registered with the Minnesota Board of Social Workers were emailed the Letter of Informed Consent and survey link. They were notified of the measures taken to protect them and of the general survey information, such as that it contained 22 close-ended questions and that it would take no more than 10-15 minutes to complete. In order to assess their understanding of participation in this research study, the potential respondents were also asked to answer the three questions below before starting the survey.

1. Please describe how this study is both voluntary and anonymous in nature.
2. How will the data be kept confidential?
3. Please indicate how you provide consent to taking this survey?

The respondents were thanked in advance for their participation and encouraged to contact the researcher with any questions, comments, or concerns. They were also invited to receive a copy of the final paper in May, 2014.

Data Analysis Plan

This study used SPSS to find univariate descriptive and bivariate inferential statistical analyses. Frequency distributions, bar graphs, and measures of central tendency were computed for the general respondent information questions and for the responses on the Social Workers' General Attitudes about Use of Psychotropic Medication with Youths scale. Independent sample T-test analyses allowed generalizations to be made from this sample to the larger social work population (Monette, Sullivan, & DeJong, 2011), comparing social workers' age, training and education received in psychopharmacology, years of experience, and theoretical orientations to their beliefs that psychotropic medication is beneficial or harmful to children and adolescents.

Results/Findings

Descriptive Statistics

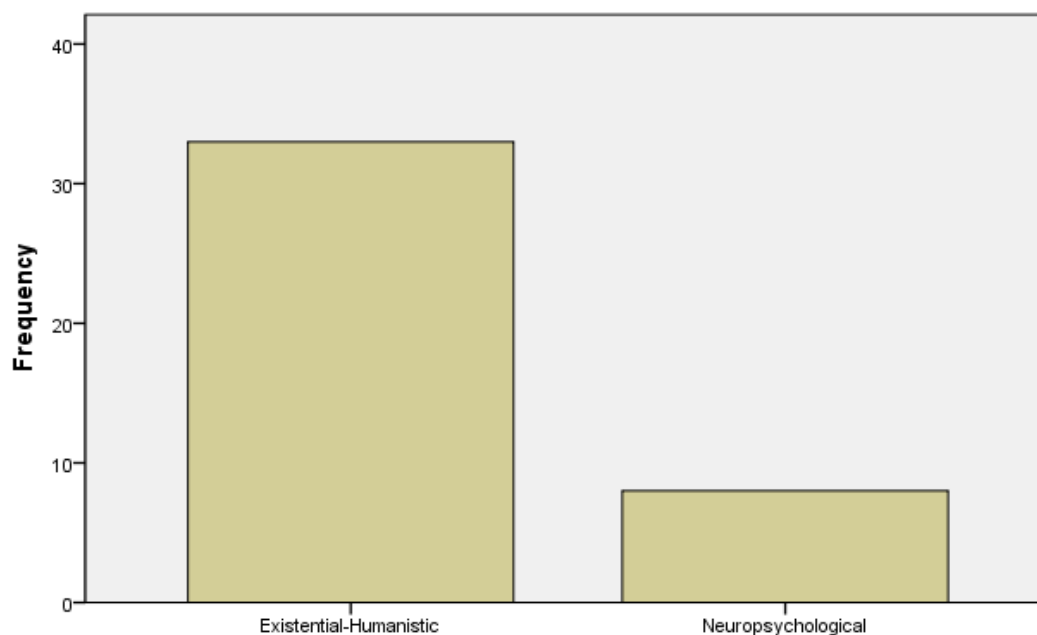
The first descriptive statistic addressed the research question: How many respondents in this study identified as having an existential-humanistic theoretical orientation and how many identified as having a neuropsychological theoretical orientation? Statistical analysis of this nominal variable occurred through a frequency distribution and bar graph, displayed below in Table 1 and Figure 1.

Table 1

Distribution of Respondents Who Identified as Existential-Humanistic vs. Neuropsychological

Theoretical Orientation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Existential-Humanistic	33	71.7	80.5	80.5
	Neuropsychological	8	17.4	19.5	100.0
	Total	41	89.1	100.0	
Missing	System	5	10.9		
Total		46	100.0		

Table 1 shows that of the 41 total respondents, an overwhelming percent identified as existential-humanistic (80.5%) versus neuropsychological (19.5%). Participant responses appear in Figure 1



below.

Theoretical Orientation

Figure 1. Distribution of Respondents Who Identified as Existential-Humanistic vs. Neuropsychological.

Figure 1 visually demonstrates that a high majority of participants identified as having an existential-humanistic theoretical orientation versus a neuropsychological theoretical orientation.

The next set of descriptive statistics examine the questions from the Social Workers' General Attitudes about Use of Psychotropic Medication with Youths Scale (Moses & Kirk, 2006). All 14 questions on the scale were divided into three categories: medication's benefits, medication's harms, and medication and other treatments. The following five questions are under the category of medication's benefits. The first of the five asked the question: Is psychotropic medication a necessary part of treatment for many emotional disorders? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 2 below.

Table 2

Perceptions that Psychotropic Medication is a Necessary Part of Treatment for Many Emotional Disorders

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Psychotropic medication is a necessary part of treatment for many emotional disorders	43	1	4	2.79	.742
Valid N (listwise)	43				

Table 2 reveals that the minimum possible score was 1 (strongly disagree) and the maximum possible score was 4 (strongly agree). The mean score of the 43 respondents was 2.79, indicating that the social work respondents tended to lean more toward agreeing than disagreeing that psychotropic medication is a necessary part of treatment for many emotional disorders. However, the standard deviation was .742, meaning that the scores' distance from the mean were substantial in both directions.

The second of the five questions related to medication's benefits asked: Is psychotropic medication the treatment most likely to bring about rapid improvement? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 3 below.

Table 3

Perceptions that Psychotropic Medication is the Treatment Most Likely to Bring about Rapid Improvement

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Psychotropic medication is the treatment most likely to bring about rapid improvement	43	1	4	2.44	.629
Valid N (listwise)	43				

Table 3 reveals that the minimum possible score was 1 (strongly disagree) and the maximum possible score was 4 (strongly agree). The mean score of the 43 respondents was 2.44, indicating

that the social work respondents were almost exactly in the middle between agreeing and disagreeing that psychotropic medication is the treatment most likely to bring about rapid improvement. However, with the standard deviation at .629, the scores' distance from the mean varied considerably.

The third of the five questions related to medication's benefits asked: Is psychotropic medication the most effective way of getting adolescents' behavior under control? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 4 below.

Table 4

Perceptions that Psychotropic Medication is the Most Effective Way of Getting Adolescents' Behavior under Control

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Psychotropic medication is the most effective way of getting adolescents' behavior under control	43	1	3	1.77	.571
Valid N (listwise)	43				

Table 4 reveals that the minimum possible score was 1 (strongly disagree) and the maximum possible score was 3 (agree), meaning that nobody selected 4 (strongly agree). The mean score of the 43 respondents was 1.77, indicating that the majority of respondents disagreed that psychotropic medication was the most effective way of getting adolescents' behavior under control. With the standard deviation at .571, there was a marked difference of scores' distance from the mean.

The fourth of the five questions under the category of medication's benefits asked: Does taking psychotropic medication result in higher self-esteem among youth? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 5 below.

Table 5

Perceptions that Taking Psychotropic Medication Results in Higher Self-Esteem among Youth

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Taking psychotropic medication results in higher self-esteem among youth	43	0	3	2.07	.632
Valid N (listwise)	43				

Table 5 reveals that the minimum possible score was 0, meaning that some participants did not respond and the maximum possible score was 3 (agree), meaning that no participants selected 4 (strongly agree). The mean score of the 43 respondents was 2.07, indicating that most of the respondents disagreed that taking psychotropic medication results in higher self-esteem among youth. However, the standard deviation was .632, signifying that the scores' distance from the mean were substantial in both directions.

The final question under the category of medication's benefits asked: Do the benefits of psychotropic medication far outweigh any risks associated with it? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 6 below.

Table 6

Perceptions that the Benefits of Psychotropic Medication Far Outweigh Associated Risks

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
The benefits of psychotropic medication far outweigh any risks associated with it	43	1	4	2.37	.691
Valid N (listwise)	43				

Table 6 reveals that the minimum possible score was 1 (strongly disagree) and the maximum possible score was 4 (strongly agree). The mean score of the 43 respondents was 2.37, indicating that the social work respondents were once again in the middle, but tended to lean more toward

disagreeing than agreeing that the benefits of psychotropic medication far outweigh any risks associated with it, although not by an overwhelming amount. However, with a standard deviation of .691, the scores' distance from the mean varied considerably.

Overall, the mean for the medication's benefits category was 2.3 and the standard deviation was 0.7, signifying that, due to the broad range of responses for each question, the social work respondents did not lean stronger in one direction or another when it came to agreeing or disagreeing in medication's benefits.

The next six questions fall under the category of medication's harms. The first of the six questions asked: Is psychotropic medication often used as a substitute for other treatments? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 7 below.

Table 7

Perceptions that Psychotropic Medication is Often Used as a Substitute for Other Treatments

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Psychotropic medication is often used as a substitute for other treatments	43	2	4	2.77	.684
Valid N (listwise)	43				

Table 7 shows that the minimum possible score was 2 (disagree), meaning no respondents selected 1 (strongly disagree) and the maximum possible score was 4 (strongly agree). The mean score of the 43 participants was 2.77, indicating that the majority of social work participants agreed that psychotropic medication is often used as a substitute for other treatments. With a standard deviation of .684, the scores' distance from the mean varied markedly.

The second of the six questions related to medication's harms asked: Does psychotropic medication send youth the wrong message about dealing with problems? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 8 below.

Table 8

Perceptions that Psychotropic Medication Sends Youth the Wrong Answer about Dealing with Problems

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Psychotropic medication sends youth the wrong message about dealing with problems	43	1	4	2.09	.811
Valid N (listwise)	43				

Table 8 shows that the minimum possible score was 1 (strongly disagree) and the maximum possible score was 4 (strongly agree). Of the 43 respondents, the mean score was 2.09, signifying that most social work respondents disagreed that psychotropic medication sends youth the wrong message about dealing with problems. However, the standard deviation was .811, meaning that the scores' distance from the mean were substantial in both directions.

The third of the six questions under the category of medication's harms asked: Is psychotropic medication often given to youth because of their parents' poor parenting skills? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 9 below.

Table 9

Perceptions that Psychotropic Medication is Often Given to Youth Because Of Their Parents' Poor Parenting Skills

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Psychotropic medication is often given to youth because of their parents' poor parenting skills	43	1	4	2.16	.814
Valid N (listwise)	43				

Table 9 shows that the minimum possible score was 1 (strongly disagree) and the maximum possible score was 4 (strongly agree). Of the 43 respondents, the mean score was 2.16, indicating that the majority of respondents disagreed that psychotropic medication is often given to youth because of their parents' poor parenting skills. Once again, with a standard deviation of .814, the scores' distance from the mean varied substantially.

The fourth of the six questions related to medication's harms asked: Is the primary function of psychotropic medication to control youth? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 10 below.

Table 10

Perceptions that the Primary Function of Psychotropic Medication is to Control Youth

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
The primary function of psychotropic medication is to control youth	43	1	3	1.72	.666
Valid N (listwise)	43				

Table 10 reveals that the minimum possible score of this question was 1 (strongly disagree) and the maximum possible score was 3 (agree), meaning that no participants selected 4 (strongly agree). The mean score of the 43 respondents was 1.72, signifying that most of the social work

respondents tended to disagree or strongly disagree that the primary function of psychotropic medication is to control youth. The standard deviation was .666, so most scores' distance from the mean were considerable in both directions.

The fifth of the six questions under the category of medication's harms asked: Does relying on psychotropic medication for treatment take professionals' attention away from broader problems in our society? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 11 below.

Table 11

Perceptions that Relying on Psychotropic Medication for Treatment Takes Professionals' Attention Away From Broader Problems in Our Society

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Relying on psychotropic medication for treatment takes professionals' attention away from broader problems in our society	43	1	4	2.37	.817
Valid N (listwise)	43				

Table 11 reveals that the minimum possible score was 1 (strongly disagree) and the maximum possible score was 4 (strongly agree). Of the 43 respondents, the mean score was 2.37, meaning that respondents were more in the middle, both agreeing and disagreeing that relying on psychotropic medication for treatment takes professionals' attention away from broader problems in our society. Once again, with a standard deviation of .817, the scores' distance from the mean were substantial in both directions.

The final of the six questions related to medication's harms asked the question: In the end, can psychotropic medication make youth even more disturbed? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 12 below.

Table 12

Perceptions that In the End, Psychotropic Medication Can Make Youth Even More Disturbed

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
In the end, psychotropic medication can make youth even more disturbed	43	1	4	2.26	.819
Valid N (listwise)	43				

Table 12 shows that the minimum possible score was 1 (strongly disagree) and the maximum possible score was 4 (strongly agree). Of the 43 respondents, the mean score was 2.26, once again signifying that, although not by an overwhelming amount, more respondents disagreed than agreed that in the end, psychotropic medication can make youth even more disturbed. Like all the other standard deviations under the medication's harms category, this standard deviation was .819, indicating that most scores' distance from the mean varied markedly.

Overall, the mean for medication's harms was 2.2 and the standard deviation was 0.8. Thus, like medication's benefits, most social work respondents were in the middle, however, more tended to disagree than agree in medication's harms. Also, the scores' distance from the mean were substantial in both directions.

The next three questions fall under the category of medication and other treatments. The first of the three questions asked: Before recommending psychotropic medication, should all other treatment options be explored? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 13 below.

Table 13

Perceptions that Before Recommending Psychotropic Medication, All Other Treatment Options Should Be Explored

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Before recommending psychotropic medication, all other treatment options should be explored	43	1	4	3.07	.799
Valid N (listwise)	43				

Table 13 shows that the minimum possible score was 1 (strongly disagree) and the maximum possible score was 4 (strongly agree). Of the 43 total respondents, the mean score was 3.07, meaning that a high majority of respondents agreed or strongly agreed that before recommending psychotropic medication, all other treatment options should be explored. The standard deviation was .799, indicating that most scores' distance from the mean varied substantially.

The second of the three questions under medication and other treatments asked: Should psychotropic medication always be accompanied by other forms of therapy? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 14 below.

Table 14

Perceptions that Psychotropic Medication Should Always be Accompanied by Other Forms of Therapy

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Psychotropic medication should always be accompanied by other forms of therapy	43	2	4	3.51	.592
Valid N (listwise)	43				

Table 14 demonstrates that the minimum possible score was 2 (disagree), meaning no participants selected 1 (strongly disagree), and the maximum possible score was 4 (strongly

agree). Of the 43 total respondents, the mean score was 3.51, signifying that most respondents strongly agreed that psychotropic medication should always be accompanied by other forms of therapy. With a standard deviation of .592, there was still a marked difference of scores' distance from the mean.

The final question under medication and other treatments asked: Does taking psychotropic medication without therapy leave the basic problems unchanged? Statistical analysis of this ordinal variable occurred through measures of central tendency, displayed in Table 15 below.

Table 15
Perceptions that Taking Psychotropic Medication without Therapy Leaves the Basic Problems Unchanged

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Taking psychotropic medication without therapy leaves the basic problems unchanged	43	1	4	3.23	.718
Valid N (listwise)	43				

Table 15 demonstrates that the minimum possible score was 1 (strongly disagree) and the maximum possible score was 4 (strongly agree). Of the 43 total respondents, the mean score was 3.23, indicating that a high majority of respondents agreed or strongly agreed that taking psychotropic medication without therapy leaves the basic problems unchanged. The standard deviation was .718, indicating that most scores' distance from the mean were considerable in both directions.

Overall, the mean for medication and other treatments was 3.2 and the standard deviation was .703. Thus, different from medication's benefits and harms, most social work respondents

agreed or strongly agreed that other forms of treatment or therapy should be considered along with psychotropic medication. Scores' distance from the mean also varied markedly.

The final two descriptive statistics individually examined two of the questions from the Social Workers' General Attitudes about Use of Psychotropic Medication with Youths Scale (Moses & Kirk, 2006). The first question asked: Is psychotropic medication often given to youth because of their parents' poor parenting skills? Statistical analysis of this ordinal variable occurred through a frequency distribution and bar graph. The frequency distribution below in Table 16 reveals the number of respondents who strongly agree, agree, disagree, and strongly disagree that psychotropic medication is often given to youth because of their parents' poor parenting skills.

Table 16

Distribution of Respondents Who Strongly Agree, Agree, Disagree, and Strongly Disagree That Psychotropic Medication is Often Given to Youth Because Of Their Parents' Poor Parenting Skills

Psychotropic Medication is Often Given to Youth Because of Their Parents' Poor Parenting Skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	20.5	20.9	20.9
	Disagree	20	45.5	46.5	67.4
	Agree	12	27.3	27.9	95.3
	Strongly Agree	2	4.5	4.7	100.0
	Total	43	97.7	100.0	
Missing	System	1	2.3		
Total		44	100.0		

Table 16 shows that more respondents tended to disagree or strongly disagree than agree or strongly agree that psychotropic medication is often given to youth because of their parents' poor parenting skills. Of the 43 total respondents, 20.9% strongly disagreed, 46.5% disagreed, 27.9% agreed, and 4.7% strongly agreed. Participant responses appear in Figure 2 below.

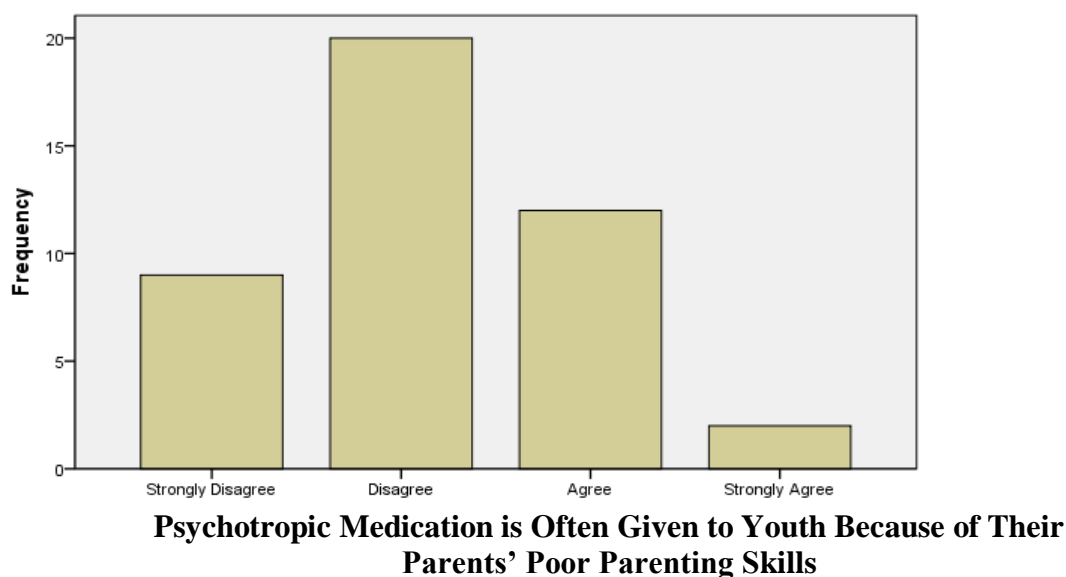


Figure 2. Distribution of Respondents Who Strongly Agree, Agree, Disagree, and Strongly Disagree That Psychotropic Medication is Often Given to Youth Because Of Their Parents' Poor Parenting Skills.

Figure 2 visually demonstrates that more respondents disagreed than agreed that psychotropic medication is often given to youth because of their parents' poor parenting skills.

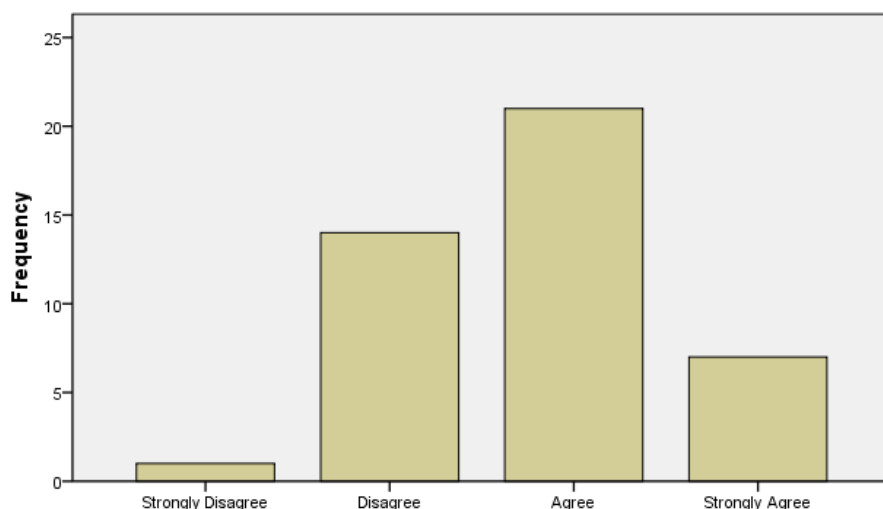
The final descriptive statistic addressed the research question: Is psychotropic medication a necessary part of treatment for many emotional disorders? Statistical analysis of this ordinal variable occurred through a frequency distribution and bar graph. The frequency distribution below in Table 17 reveals the number of respondents who strongly agree, agree, disagree, and strongly disagree that psychotropic medication is a necessary part of treatment for many emotional disorders.

Table 17

Distribution of Respondents Who Strongly Agree, Agree, Disagree, and Strongly Disagree That Psychotropic Medication is a Necessary Part of Treatment for Many Emotional Disorders

Psychotropic Medication is a Necessary Part of Treatment for Many Emotional Disorders		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	2.2	2.3	2.3
	Disagree	14	30.4	32.6	34.9
	Agree	21	45.7	48.8	83.7
	Strongly Agree	7	15.2	16.3	100.0
	Total	43	93.5	100.0	
Missing	System	3	6.5		
Total		46	100.0		

Table 17 shows that more respondents tended to agree or strongly agree than disagree or strongly disagree that psychotropic medication is a necessary part of treatment for many emotional disorders. Of the 43 total respondents, 2.3% strongly disagreed, 32.6% disagreed, 48.8% agreed, and 16.3% strongly agreed. Participant responses appear in Figure 3 below.



Psychotropic Medication is a Necessary Part of Treatment for Many Emotional Disorders

Figure 3. Distribution of Respondents Who Strongly Agree, Agree, Disagree, and Strongly Disagree That Psychotropic Medication is a Necessary Part of Treatment for Many Emotional Disorders.

Figure 3 visually demonstrates that more respondents agree than disagree that psychotropic medication is a necessary part of treatment for many emotional disorders.

Inferential Statistics

Several independent sample T-tests were conducted in SPSS to see whether there was a statistical significance between respondents' personal characteristics and their belief in medication's harms and benefits. The first T-test analyzed the following research question: Does age impact perception of medication's harms? The hypothesis is that there is a relationship between respondents' age and their belief that medication is harmful to children and adolescents. The null hypothesis is that there is no relationship between respondents' age and their belief that medication is harmful to children and adolescents. The statistics for and results of this analysis are shown in Tables 18 and 19 below, with (1) signifying respondents who were 39 years old and younger and (2) signifying respondents who were 40 years old and older.

Table 18

Group Statistics for Age and Perceptions of Medication as Harmful T-test

Group Statistics				
Age Recoded	N	Mean	Std. Deviation	Std. Error Mean
HarmScale 1.00	24	2.2569	.56032	.11437
2.00	18	2.2500	.57522	.13558

Table 19

Age and Perceptions of Medication as Harmful T-test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
HarmScale	Equal variances assumed	.035	.852	.039	40	.969	.00694	.17670	-.35018	.36407
	Equal variances not assumed			.039	36.240	.969	.00694	.17738	-.35272	.36661

Tables 18 and 19 show the results of the independent sample T-test comparing the means of those who perceive medication as harmful among respondents with varying ages. The mean score of respondents 39 years old and younger was 2.2569 while the mean score of respondents 40 years old and older was 2.2500. The difference between the two mean scores was .0069.

Therefore, regardless of age, all respondents tended to lean slightly more toward disagreeing than agreeing that psychotropic medication is harmful for children and adolescents.

The Levene's Test for Equality of Variance for the independent sample T-test is .852. Because .852 is greater than .05, the Levene's Test is not significant. Therefore, the p-value for this test is .969, which is also greater than .05, indicating that the results of this data are also not statistically significant. As a result, this statistical analysis fails to reject the null hypothesis that there is no relationship between respondents' age and their belief that medication is harmful to children and adolescents.

A second independent sample T-test was conducted that asked the question: Does training or education in psychopharmacology impact perception of medication's benefits? The hypothesis is that there is a relationship between respondents' training or education in psychopharmacology and their belief that medication is beneficial to children and adolescents. The null hypothesis is that there is no relationship between respondents' training or education in psychopharmacology and their belief that medication is beneficial to children and adolescents. The statistics for and results of this analysis are shown in Tables 20 and 21 below.

Table 20

Group Statistics for Training or Education in Psychopharmacology and Perceptions of Medication as Beneficial T-test

Group Statistics				
Have you ever received training/education in psychopharmacology?	N	Mean	Std. Deviation	Std. Error Mean
BenefitsScale Yes	27	2.2815	.42339	.08148
No	16	2.3000	.41952	.10488

Table 21

Training or Education in Psychopharmacology and Perceptions of Medication as Beneficial T-test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
BenefitsScale	Equal variances assumed	.039	.844	-.139	41	.890	-.01852	.13313	-.28738	.25035
	Equal variances not assumed			-.139	31.873	.890	-.01852	.13281	-.28909	.25205

Tables 20 and 21 show the results of the independent sample T-test comparing the means of those who perceive medication as beneficial with respondents who had received training or education in psychopharmacology to those who had not. The mean score of respondents who had received training or education in psychopharmacology was 2.2815 while the mean score of respondents who had not received training or education in psychopharmacology was 2.3000. The difference between the two mean scores was .0185. Therefore, regardless if training or education in psychopharmacology was received, all respondents tended to lean slightly more toward

disagreeing than agreeing that psychotropic medication was beneficial for children and adolescents.

The Levene's Test for Equality of Variance for the independent samples T-test is .844. Because .844 is greater than .05, the Levene's Test is not significant. Therefore, the p-value for this test is .890, which is also greater than .05, indicating that the results of this data are also not statistically significant. Consequently, this statistical analysis fails to reject the null hypothesis that there is no relationship between respondents' training or education in psychopharmacology and their belief that medication is beneficial to children and adolescents.

A final independent sample T-test that was conducted to see whether there was a statistical significance between respondents' personal characteristics and their belief in medication's harms and benefits asked the question: Do years of experience impact perception of medication's benefits? The hypothesis is that there is a relationship between respondents' years of experience and their belief that medication is beneficial to children and adolescents. The null hypothesis is that there is no relationship between respondents' years of experience and their belief that medication is beneficial to children and adolescents. The statistics for and results of this analysis are shown in tables 22 and 23 below, with (1) signifying one to five years of experience and (2) signifying six and more years of experience.

Table 22

Group Statistics for Years of Experience and Perceptions of Medication as Beneficial T-test

Group Statistics					
Years Experience Recoded		N	Mean	Std. Deviation	Std. Error Mean
BenefitsScale	1.00	13	2.0769	.48675	.13500
	2.00	30	2.3800	.35370	.06458

Table 23

Years of Experience and Perceptions of Medication as Beneficial T-test

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
BenefitsScale	Equal variances assumed	2.244	.142	-2.297	41	.027	-.30308	.13192	-.56949	-.03667
	Equal variances not assumed			-2.025	17.736	.058	-.30308	.14965	-.61782	-.01166

Tables 22 and 23 show the results of the independent sample T-test comparing the means of those who perceive medication as beneficial with respondents who had five or less years of experience to those who had six or more years of experience. The mean score of respondents who had five or less years of experience was 2.0769 while the mean score of respondents with six or more years of experience was 2.3800. The difference between the two mean scores was .3031. Therefore, those with more experience tended to agree slightly more than those with less experience that psychotropic medication is beneficial for children and adolescents.

The Levene's Test for Equality of Variance for the independent samples T-test is .142. Because .142 is greater than .05, the Levene's Test is not significant. However, the p-value for

this test is .027, which is less than .05, indicating that the results of this data are indeed statistically significant. As a result, this statistical analysis rejects the null hypothesis that there is no relationship between respondents' years of experience and their belief that medication is beneficial to children and adolescents.

Another T-test was conducted that considered social workers' theoretical orientations, asking the research question: Does one's theoretical orientation impact perceptions of medication's harms? The hypothesis is that there is a relationship between respondents' theoretical orientation and their belief that medication is harmful to children and adolescents. The null hypothesis is that there is no relationship between respondents' theoretical orientation and their belief that medication is harmful to children and adolescents. The statistics for and results of this analysis are shown in tables 24 and 25 below.

Table 24

Group Statistics for Theoretical Orientation and Perceptions of Medication as Harmful T-test

Group Statistics					
Theoretical Orientation		N	Mean	Std. Deviation	Std. Error Mean
HarmScale	Existential-Humanistic	33	2.2576	.54818	.09543
	Neuropsychological	8	2.2292	.71235	.25185

Table 25

Theoretical Orientation and Perceptions of Medication as Harmful T-test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
				F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
		Lower	Upper							
HarmScale	Equal variances assumed	.864	.358	.124	39	.902	.02841	.22899	-.43477	.49159
	Equal variances not assumed			.105	9.113	.918	.02841	.26933	-.57970	.63652

Tables 24 and 25 show the results of the independent sample T-test comparing the means of those who perceive medication as harmful with respondents who identified as existential-humanistic to those who identified as neuropsychological. The mean score of respondents who identified as existential-humanistic was 2.2576 while the mean score of respondents who identified as neuropsychological was 2.2292. The difference between the two mean scores was .0284. Therefore, regardless of theoretical orientation, all respondents tended to lean slightly more toward disagreeing than agreeing that psychotropic medication is harmful for children and adolescents.

The Levene's Test for Equality of Variance for the independent samples T-test is .358. Because .358 is greater than .05, the Levene's Test is not significant. Therefore, the p-value for

this test is .902, which is also greater than .05, indicating that the results of this data are also not statistically significant. As a result, this statistical analysis fails to reject the null hypothesis that there is no relationship between respondents' theoretical orientation and their belief that medication is harmful to children and adolescents.

Discussion

The purpose of this study was to determine if there was an association between social workers' theoretical orientations and their attitudes toward psychotropic drug use on children and adolescents. Due to social work's training and practice emphasis on the person-in-environment orientation, it was hypothesized that social workers would tend to endorse an existential-humanistic theoretical framework versus a neuropsychological framework, which is more medically based. Additionally, it was hypothesized that social workers' attitudes towards psychotropic drug use on children and adolescents would be consistent with that found in current literature, viewing medication as both beneficial and harmful (Moses & Kirk, 2006) or as Johnson et al., (1998) put it, "helpful but not necessary" (p. 183).

Key Findings and Considerations

The findings of this study align with the hypothesis that more social workers would endorse the existential-humanistic (80.5%) framework versus the neuropsychological framework (19.5%). Current research also supports this finding. In the Johnson et al., (1998) study, only seven respondents claimed a neuropsychological orientation, whereas 47 endorsed an existential-humanistic framework. However, due to the lack of a statistically significant relationship between theoretical orientation and the belief that medication is harmful to children and adolescents, this study found no association between these two variables. In other words, those

who endorsed the existential-humanistic framework considered medication to be no less harmful or beneficial than those who endorsed a neuropsychological framework; all respondents tended to disagree slightly more than agree with the notion that psychotropic medication is harmful for youth. This finding is in direct contrast with studies conducted by Moses and Kirk (2006) and Johnson, et al., (1994, 1997, & 1998) that there is a parallel between social workers' theoretical framework and their attitudes of psychotropic drug use on children and adolescents; in particular, they found that those more likely to perceive harms had an existential-humanistic orientation rather than a neuropsychological orientation. Clearly, this was not the case in the present study.

Research also shows that besides theoretical orientation, age is another important factor when determining perceptions of medication's harms, with older participants more likely than younger participants to perceive medication as harmful (Moses & Kirk, 2006). However, this study found no relationship between these two variables. Regardless of age, all were in the middle, leaning slightly more toward disagreeing than agreeing that medication is harmful for children and adolescents. On the contrary, Moses and Kirk (2006) discovered that those who viewed psychotropic medication as beneficial for youth considered themselves knowledgeable and educated in psychopharmacology and had more years of experience in the social work profession. In this study, there was a lack of a statistically significant relationship between respondents' training or education in psychopharmacology and their belief that medication was beneficial to children and adolescents. In other words, regardless of whether training or education in psychopharmacology was received, all respondents tended to disagree slightly more than agree in medicating youth. In contrast, this study found a statistically significant relationship between years of experience and the belief that psychotropic medication was

beneficial for youth, with those with more experience agreeing more than those with less experience in its use.

This study was also consistent with existing research that found medication as both beneficial and harmful (Moses & Kirk, 2006) and “helpful but not necessary” (Johnson et al., 1998, p. 183). Utilizing the Social Workers’ General Attitudes about Use of Psychotropic Medication with Youths Scale, a four-point scale created by Moses and Kirk (2006), this study found the overall mean for medication’s benefits to be 2.3, the overall mean for medication’s harms to be 2.2, and the overall mean for medication and other treatments to be 3.2. Moses and Kirk’s (2006) numbers were almost identical; their overall mean for medication’s benefits was 2.5, their overall mean for medication’s harms was 2.2, and their overall mean for medication and other treatments was 3.2. Altogether, social work respondents were mostly in the middle regarding medication’s benefits, they mostly disagreed in medication’s harms, and they were overwhelmingly supportive of other forms of treatment over psychotropic medication. Further substantiating these findings are the large standard deviations, which indicate a wide range of answers in all directions and explain why the averages for each question lie somewhere in the middle.

When looking individually at the questions under medication’s benefits, 65 percent in this study agreed that medication is a necessary part of treatment for many emotional disorders, while 81 percent in the Moses and Kirk (2006) study agreed with this statement. Johnson et al., (1998) asked a similar question, “For many psychiatric disorders in children and adolescents, medication is necessary” and they found that more than half of their respondents agreed. In contrast, only 21 percent of respondents in this study agreed that psychotropic medication is the most effective way of getting young peoples’ behavior under control and only nine percent in the

Moses and Kirk (2006) study agreed with this. These results further support the findings that social workers are mostly in the middle regarding medication's benefits.

When looking at individual questions about medication's harms, it is understandable why respondents from both studies mostly disagreed that psychotropic medication was harmful for youth. In this study, respondents overwhelmingly disagreed or strongly disagreed with five of the six questions. The only question they were more agreeable to was that psychotropic medication is often used as a substitute for other treatments, which is in line with what Moses and Kirk (2006) discovered. Sixty-two percent of respondents in this study agreed with this statement while 67 percent agreed from the Moses and Kirk (2006) study. One question that a majority of respondents in this study disagreed or strongly disagreed on was that psychotropic medication was often given to youth because of their parents' poor parenting skills. However, in their study, Johnson and Renaud (1997) found that social workers were more likely than psychologists or psychiatrists to blame parents for their child's mental and emotional problems. In fact, many even supported the idea that abnormal child behaviors were the result of family dysfunction. Clearly, these research findings are not congruent with one another, but they do illuminate the emphasis social work places on the person-in-environment rather than biological factors when it comes to understanding human behavior.

Lastly, when looking individually at the medication and other treatment questions, it is evident why respondents from both studies believe that medication should not be the only treatment option. Slightly over 95 percent of respondents in this study compared to 88.8 percent of respondents in the Moses and Kirk (2006) study agreed that psychotropic medication should always be accompanied by other forms of therapy; 88.4 percent of respondents in this study versus 80.6 percent in the Moses and Kirk (2006) study agreed that taking psychotropic

medication without therapy leaves the basic problems unchanged; and 76.8 percent of respondents in this study compared to 67.9 percent in the Moses and Kirk (2006) study agreed that before recommending psychotropic medication, all other treatments options should be explored. Overall, a high majority of respondents in both studies agree with all three statements on the scale, suggesting that psychotropic medication should not be the first line of mental health nor should it be the only form of treatment.

All in all, the findings in this study are congruent with those found by Moses and Kirk (2006) that, “even those who perceive that medication is often necessary or helpful may not identify medication as sufficient or the most effective way of dealing with emotional problems” (p. 217). Johnson et al., (1998) concurred, stating, “This combination of results seems to suggest the view that medication is helpful but not necessary” (p. 183).

Implications for Social Work Practice

Due to the fact that “professional social workers are the nation’s largest group of mental health services providers” (NASW, 1999), with more clinically trained social workers than psychiatrists, psychologists, and psychiatric nurses combined, they are likely to encounter clients with mental health and emotional problems who are medicated or could benefit from medication. Depending on their professional lens, social workers can advocate for alternative interventions such as mental health counseling or supplemental and dietary modifications, promote the use of psychotropic medication in conjunction with therapy, or they can refer clients to doctors or psychiatrists who can prescribe medications. However, unlike all other mental health professionals, little emphasis is placed on psychopharmacology in social work educational settings; social workers are trained to look at the person-in-environment and are taught that “the use of a medical label, which is more or less inevitable if medication is being administered,

might blinker professionals to the full range of possible social or contextual factors lying behind these problems” (Pentecost & Wood, 2002, p. 938). Therefore, they may be more hesitant to label an individual with a diagnosis and use medication as a viable treatment option. In this study, 28 of the 44 respondents had received training or education in psychopharmacology, however, most of it was via workshops, seminars, in-services, and self-teaching rather than through college courses. Because medication is effective for many individuals with mental health complications, Johnson and Renaud (1997) suggest:

More attention is needed, especially in the training of clinical social workers, to contemporary research-based knowledge that supports the importance of biological factors in etiology and the effectiveness of biological treatments (psychotropic medications) for some of the emotional and behavioral disturbances of childhood and adolescence. (p. 160, citing Peschel & Howe, 1992, n.p.)

Implications for Policy

As was previously stated, the 1997 FDA Modernization Act created new guidelines that allowed direct-to-consumer advertising (DTCA) and the use of off-label medications, which resulted in a 64.6 percent increase in prescriptions for psychotropic medications in 1999 alone (Thomas, et al., 2006). However, this large increase in prescriptions was not accompanied by a parallel increase in mental illness, meaning that many people, including children, were being prescribed medications for conditions that may not have been pathological in nature (Lakhan & Hagger-Johnson, 2007). Additionally, many of the side effects and long-term consequences for these drugs are still unknown (Buck & Farrington, 2000). Legislation must be passed that mandates the communication of these realities to the public. Since FDA policies allow DTCA advertisements, it is essential that they be regulated and “meet a standard of fair balance in

representing a pharmaceutical's effectiveness, side effects, and contraindications" (Lyles, 2002, p. 88).

Implications for Research

As was noted, physicians in the United States prescribe more psychotropic medication to children than any other country in the world (Lakhan & Hagger-Johnson, 2007). Despite the fact that 60 percent of drugs prescribed to children are off-label, meaning they haven't been tested or FDA-approved for use on them (Lakhan & Hagger-Johnson, 2007), children as young as two years old are now receiving stimulants, anti-depressants, and anti-psychotic medications (Coyle, 2000). According to Morris and Stone (2011), "The dramatic rise in prescribing psychotropic drugs to children and adolescents has occurred without basic scientific evidence to support the safety and utility of these medications" (p. 302). Therefore, medical professionals are prescribing them to children for conditions other than what they were approved for and for longer periods of time than intended without absolute certainty of the long-term consequences. This calls for more extensive research on child psychopharmacology, especially in the preschool-aged group, to provide empirical evidence on the effectiveness and safety of treatments.

Similarly, more research needs to be done on studies regarding social workers' attitudes related to the harms and benefits of psychotropic drug use. Other than the studies conducted by Moses and Kirk (2006) and Johnson et al., (1998), the most recent studies were conducted by Bentley, Farmer, & Phillips in 1991 and Davidson & Jamison in 1983. For that reason, the social work field would benefit from more current studies on this matter to, for example, help promote more psychopharmacological training in social work graduate studies.

Lastly, although it is clear from this study that social workers believe that psychotropic medication should be prescribed in conjunction with therapy or other treatments, little

information exists on the benefits and positive outcomes of this topic. More studies on this matter could help social workers push for therapy or other treatments as the first line of mental health, or at the very least, advocate for the combination of medication with therapy.

Strengths and Limitations

The data findings from this study provide advantages and limitations to this research proposal. One major advantage was that it was a stratified sample of social workers, meaning that the Board of Social Workers were divided into smaller subgroups, referred to as strata, and each strata was then randomly sampled (Monette, et al., 2011). This allowed the sample to contain respondents who identified with each of the various demographic questions such as current level of licensure, primary area of practice, and years of experience. Another advantage of this study was that it used the Social Workers' General Attitudes about Use of Psychotropic Medication with Youths scale, which has been used in a previous study conducted by Moses & Kirk (2006). Therefore, the data generated from this study could be compared and contrasted to that of Moses and Kirk's, contributing to the current pool of knowledge regarding this topic. A final advantage of this study was that nearly all the questions had a 100 percent response rate, strengthening the validity of the findings.

This study also has several limitations. According to Moses and Kirk (2006) who used the Social Workers' General Attitudes about Use of Psychotropic Medication with Youths scale,

As little is known about what social workers believe about psychotropic medications or how their attitudes may vary by setting, demographics, client characteristics, circumstances, or different disorders, a survey using force-choiced items such as this one limits the range of responses and could create difficulty for respondents who are asked to simplify their opinions or make difficult choices. (p. 219)

Rather than fixed-answers, future studies should provide clinical vignettes, personal interviews, or qualitative questions, allowing the respondents to more fully elaborate on their attitudes and beliefs (Moses & Kirk, 2006).

Another limitation of this study was that the sample lacked diversity. As noted in the sample section, the participants were overwhelmingly female (84%), Caucasian (95%), and middle-aged, with the majority of them being in their 30's, 40's, and 50's. Therefore, unlike other studies, little could be extrapolated from the data in regards to differences in age, gender, or race.

Finally, this study lacked an even distribution of theoretical orientations; 33 participants identified as existential-humanistic compared to eight who identified as neuropsychological. Therefore, with such an unequal distribution, there is a potential that the data could have been skewed in regards to participants' views about medication.

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Appendix A**Survey Instrument****General Information:**

1. What is your gender? Male or Female
2. What is your age? _____
3. What is your race/ethnicity?

White/Caucasian	Black/African American
Hispanic/Latino/Chicano	Native America/ American Indian
Asian/Pacific Islander	Middle Eastern
Other: _____	
4. What is your current level of social work licensure?

LSW
LGSW
LISW
LICSW
5. How many years have you been a practicing social worker? _____
6. What is your primary area of practice?

Children (i.e. Child and Family Welfare, Foster Care/Adoptions, School Social Work, Child Mental Health)
Please estimate what percentage of your current caseload is currently being prescribed one or more psychotropic medications:
0%-25%
25%-50%
50%-75%
75%-100%
Adults (Adult Mental Health, Geriatrics/Aging populations)
Criminal Justice
Health/Occupational Social Work
Other: _____
7. Psychopharmacology is the study of the effect of drugs on the mind and behavior. Have you ever received training/education in psychopharmacology? Yes or No

If yes, please mark which type of training/education in psychopharmacology you have received (Check all that apply):

College/University

Workshop

Seminar

In-service

Self-teaching (i.e. reading books; journal articles)

Other: _____

8. The purpose of this study is to answer what is missing in current research, “Is there an association between social workers’ theoretical orientation and their attitude toward psychotropic drug use on children and adolescents?” Two of the most common frameworks endorsed by mental health professionals are the existential-humanistic and neuropsychological frameworks, described below.

Existential-humanistic:

- The therapeutic relationship is the vehicle for change
- The therapist’s focus should be on the client, not merely the presenting symptoms
- Emphasis is on understanding human experience and the influences the social environment has on one’s life

Neuropsychological:

- Believe that psychiatric and behavioral disorders are the result of chemical imbalances in the brain
- Align themselves with the medical model and promote the use of psychotropic medication as the first line of mental health treatment

Please indicate which theoretical orientation you most support or relate to:

Social Workers’ General Attitudes about Use of Psychotropic Medication with Youths Scale (Moses & Kirk, 2006)

Psychotropic medication is any medication capable of affecting the mind, emotions, and behavior (i.e. Ritalin, Prozac, Depakote, Xanax, Valium, etc). Using the scale below, please rate the following statements in a way that best describes your views about psychotropic medication:

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

1. Psychotropic medication is a necessary part of treatment for many emotional disorders

1 2 3 4

2. Before recommending psychotropic medication, all other treatment options should be explored

1 2 3 4

3. Psychotropic medication is often used as a substitute for other treatments
1 2 3 4
4. Psychotropic medication is the treatment most likely to bring about rapid improvement
1 2 3 4
5. Psychotropic medication should always be accompanied by other forms of therapy
1 2 3 4
6. Psychotropic medication sends youth the wrong message about dealing with problems
1 2 3 4
7. Psychotropic medication is often given to youth because of their parents' poor parenting skills
1 2 3 4
8. Psychotropic medication is the most effective way of getting adolescents' behavior under control
1 2 3 4
9. Taking psychotropic medication without therapy leaves the basic problems unchanged
1 2 3 4
10. The primary function of psychotropic medication is to control youth
1 2 3 4
11. Taking psychotropic medication results in higher self-esteem among youth
1 2 3 4
12. Relying on psychotropic medication for treatment takes professionals' attention away from broader problems in our society
1 2 3 4
13. In the end, psychotropic medication can make youth even more disturbed
1 2 3 4
14. The benefits of psychotropic medication far outweigh any risks associated with it
1 2 3 4

Appendix B**CONSENT FORM
UNIVERSITY OF ST. THOMAS****Social Workers' Perspectives of Psychotropic Drug Use on Children and Adolescents****536677-1**

I am conducting a study regarding social workers' perspectives of psychotropic drug use on children and adolescents. Due to your expertise in the social work field, your email was provided by the Minnesota Board of Social Workers. Your participation in this research survey would be highly valued and appreciated and would help add to the current pool of knowledge regarding this subject matter.

This study is being conducted by myself, Erika Bauer, a social work graduate student at St. Catherine University, and being supported by faculty and chair member, Karen Carlson.

Background Information:

Current research exists for what social workers' attitudes are toward medicating youth and the general theoretical frameworks that they endorse. However, there is no known research that combines these two ideas. The purpose of this study is to build on current research by answering what is missing, "Is there an association between social workers' theoretical orientation and their attitude toward psychotropic drug use on children and adolescents?"

Procedures:

This survey contains 22 close-ended questions and is not expected to take more than 10-15 minutes. In order to assess your understanding of your participation in this research, please be able to answer the three questions below before starting the survey.

1. Describe how this study is both voluntary and anonymous in nature.
2. How will the data be kept confidential?
3. Indicate how you provide consent to taking this survey?

Risks and Benefits of Being in the Study:

This study has no known risks or benefits to participation. If you wish not to participate, your decision will not affect your current or future relations with St. Catherine University/the University of St. Thomas.

Confidentiality:

The records of this study will be kept confidential. The electronic surveys will remain in a password-protected file that only limited people will have access to, including myself, my chair, Karen Carlson, and my two committee members, Amanda Thooft and Sharon Gabriel. The surveys

will be destroyed upon completion of my graduate studies in May, 2014. In any written reports or publications, only group data will be presented so as to avoid individual identification.

Voluntary Nature of the Study:

Your participation in this study is entirely voluntary. As a voluntary survey, you do not have to 1) do the survey if you prefer not to or 2) fill out all the questions. You are also free to opt out of the survey at any time. As an anonymous survey, you will not be asked to provide any personal information..

Contacts and Questions

Thank you in advance for your participation in this research project! If you have any questions now or later, you may contact me at 952-836-4562 or you may contact my research chair, Karen Carlson, at 651-962-5867. You may also contact the University of St. Thomas Institutional Review Board at 651-962-5341 with any questions or concerns.

Statement of Consent:

I have read the above information. My questions have been answered to my satisfaction. I consent to participate in the study. I am at least 18 years of age.

Signature of Study Participant

Date

Print Name of Study Participant

**Signature of Parent or Guardian
(If applicable)**

Date

**Print Name of Parent or Guardian
(If Applicable)**

Signature of Researcher

Date